April 1988

National Profile of Agricultural Teacher Educators and State Supervisors of Vocational Agriculture by MBTI Preference Type

Richard M. Foster
University of Nebraska - Lincoln

James T. Hornet
University of Nebraska - Lincoln

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Richard M. Foster, Associate Professor
James T. Hornet-, Professor
Agricultural Education
University of Nebraska

Accepted for Publication January 1988

Agricultural educators are In the business of communicating, teaching, learning and leading, all of which are affected by personality (preference type). Preference type of an individual has been shown to have far-reaching implications for virtually every aspect of a person's personal and professlonal life. As such, preference type certainly affects how students learn, how teachers teach, how leaders lead and how everyone works and communicates. During the past 15 years, Interest in the Myers-Brlggs (Myers, 1962) Type indicator (MBTI) among educators has grown tremendously.

Klersey and Bates (1978) indicated that better communications and understandings are posslble when both preference type and temperament type are taken into consideration In sendlng information and decoding messages being received. They descr I be temperament type as being characteristic of four different preference (MBTI) types. Klersey and Bates reported that description by temperament type was equally effective In describ ing personal ity type and had the added benef It of fewer preference categories.

I n agricultural education, a better understanding of preference type and type implications for teaching, learnlng, leadership and communlcatlon should provide some valuable insights. The primary purpose of this study was to gather Information useful in describing the preference type proflle of state supervisors and teacher educators In agricultural education.

Purpose and Objectives

The primary purpose of this study was to provide a national preference type proflle of professionals employed in teacher education and state supervision In an effort to explain similarities and differences, and to promote increased understanding and communication between these groups and their clientele. Speclflc objectives were to:

1. Determine preference type and temperament type of teacher educators and state supervisors in agricultural education.

2. Compare preference type and temperament type of teacher educators and state supervlsors with that expected from the general population.

3. Compare temperament type of teacher educators and state supervisors by AATEA region.

4. Compare temperament type of teacher educators and temperament type of state supervlsors by years of experience.

5. Compare current working assignment by temperament type of respondent group.

Procedures

A mailed questionnalre and MBTI booklet answer sheet were used to collect data for this study. Using the 1984-85 AATEA and NASAE directories, teacher educators and state-supervisors in al l states were asked to participate and were consldered the population for this investigation. Of the 533 possible participants, 334 teacher educators and state supervisors responded to the initial request for information (62.9%). A 20% random sample of nonrespondents (39) was contacted by telephone and encouraged to return a questionnaire and MBTI form. A t-test failed to find significant differences between responses of initiaT respondents and non-respondents, so al l responses were used for final analysis (367 of 533 or 68.7%).

Since the group queried was a total population, descriptive statistics were used in the analysis of the data (means, standard deviations and frequencies). Cross-tab comparisons and chi square statistics were used to compare observed and expected distributions of preference data.

A Selection Ratio Type Table (SRTT) computer program (Kainz, 1976) was utilized to provide a convenient ratio index for comparing the distribution in percentages of types in one group (agricultural educators) with distribution found in another (general or data base) population. Normative data on proportionate type distributions in the general population data base were obtained from research findings assembled by the Center for Applications of Psychological Type, Gainesville, Florida. The data base sample used in SRTT analysis consisted of a population of 33,201 individuals.

Myers-Briggs Type Indicator

The MBTI, developed by Isabel Briggs Myers and Katherine C. Briggs over a period of 20 years, attempts a psychometric representation of Jung's (1923) theory of psychological types. The MBTI is a 126-item, forced-choice questionnalre concerned wlth Individual differences In people and the preferred manner in which information is gathered and decisions are made. The following qualities make the MBTI desirable for assessing preference type: (a) categories are broad enough to describe groups of people, yet narrow enough to provide useful descriptions; (b) the MBTI Is benign; questions are nonthreatening; and (c) there is no stigmatizing factor in the outcome since there are no wrong responses or wrong types. Social desirabil ity can, therefore, be described for any or all preference types.

Individual preferences are determined along the following four dichotomous preference scales:

E-I Scale: Extroverts (E) prefer to obtain their energies from active involvement in the outer world of people and things. Introverts (I) prefer to gain energy from concentration on the inner world of concepts and ideas. The E-I ratio is reported to be 75:25 in the general population (Kiersey & Bates, 1978).

S-N Scale: Sensing individuals (S) prefer to gather informatlon through observing the world through the five senses. Intuitives (N) prefer to gather information through a sixth sense or hunch about possibllities and concepts beyond their senses. The S-N ratio is reported to be 75:25.

T-F Scale: Thinkers (T) prefer to make decisions based on logical facts and objective observation. Feelers (F) prefer to make decisions based on personal values and empathetic or subjective observation. The T-F ratio is reported to be 50:50.

J-P Scale: Judging (J) individuals prefer to live their life In a structured, orderly, and planned fashion. Perceiving (P) individuals prefer to I Ive a more spontaneous, flexible I ife-style. A 50:50 J-P ratio is reported.

A combination of each preferred scale value makes up a person's Individual preference type (for example, ESTJ, INFP, INTJ). There are 16 specific MBTI types. Klersey and Bates (1978) discussed four combinations of MBTI types that tend to possess predictable, consistent descriptions. These "temperament" types are SJ (Sensing Judgers), SP (Sensing Perceivers), NF (Intuitive Feelers), and NT (Intuitive Thinkers).

Resu I ts

Data in Table 1 show the MBTI preference for each of four dichotomous scales as well as a comparison with the general population. It was observed that agricultural education professionals are:

1. More Extrovert (57%) than expected from the base data (I = 1.09) and less Introvert (43%) than expected (I = .90).

2. More Sensing (70%) than expected from the base data (I = 1.23) and less Intuitive (30%) than expected (I = .70).

3. More Thinking (80%) than expected from the base data (I = 1.44) and less Feeling (20%) than expected (I = .45).

4. More Judging (89%) than expected from the base data (I = 1.49) and less Perceiving (11%) than expected (I = .27).

A comparison of MBTI preference type indicated that:

1. Only 4 of the 16 types represented by professional agricultural educators (ISFJ, INTJ, ENFJ and ESFJ) did not differ significantly from the base population.

2. Types represented in the agricultural education ranks in significantly greater proportions than those In the base data were ISTJ (I = 2.00), ESTJ (I = 2.43), and ENTJ (I = 1.77).

3. Types among agricultural education in significantly smaller proportions than expected were ISTP (I = .19), ISFP (I = .30), ESTP (I = .51), ESFP (I = .06), ENFP (I = .36), ENTP (I = .45), INFJ (I = .37), INFP (I = .05), and INTP (I = 22).

4. Teacher educators (TE) differed from State Supervisors (SS) most dramatically in the following preference type: ESTJ (TE = 24.28, SS = 40.7%), ENTJ (TE = 12.38, SS = 7.3%), and ENFJ (TE = 6.2%, SS = 0.0%).

Table 2 compares ratios of temperament types of teacher educators (TE) and state supervisors (SS) with those of the base population. The following temperaments were observed:

Sensing-Judging: TE = 59.4% (I = 1.49) and SS = 77.2% (I = 1.94)
Sensing-Perceptive: TE = 4.9% (I = 0.29) and SS = 3.3% (I = 0.19)
Intuitive-Feeling: TE = 11.5% (I = 0.54) and SS = 2.4% (I = 0.11)
Intuitive-Thinking: TE = 24.2% (I = 1 .10) and SS = 17.1% (I = 0.78)

Table 3 depicts temperament types of professionals In agricultural education by AATEA region. In comparison to other regions, the Central region claims a significantly higher number of NF and a lower number of S J temperament types. The Eastern region has a higher than expected

number of NT temperament types. The Southern region, perhaps because of the heavy loading of "S," shows significantly more SJ temperament types than other regions. No disproportionate ratios among temperament types were observed in the Western reglon.

Table 1

Percent and Ratio of Preference Scales of Teacher Educators and State Supervisors Compared to Those of the General Population

Preference Scal e		Teacher Educators (N = 244)	State Supervisors (N = 123)	Total (N = 367)
(E)xtrovert	N	138	71	209
	%	56.56	57.72	56.95
	I	1 .08	1 11	1.09
(I)ntrovert	N	106	52	158
	%	43.44	42.28	43.05
	I	0.91	0.88	0.90
(S)ensing	N	157	99	256
	%	64.34	80.49	69.75
	I	1.14*	1.42**	1.23**
I (N)tui tive	N	87	24	111
	%	35.66	19.51	30.25
	I	0.82*	0.45**	0.70**
(T)hinking	N	188	105	293
	%	77.05	05.37	79.84
	I	1.39**	1.54**	1.44**
(F)eel ing	N	56	18	74
	%	22.95	14.63	20.16
	I	0.52**	0.33**	0.45**
(J)udging	N	215	112	327
	%	88.11	91 .06	89.10
	I	1.47**	1.52**	1.49**
(P)erceptive	N	29	11	40
	%	11.89	8.94	10.90
	I	0.30**	0.22**	0.27**

Note. I = Self selection Index (ratio of the percent of preferences in group to percent in a data base of 33,201). A SRTT of 1.00 Indicates preferences are the same In the study group as would be expected in the base group.

* $p<.05$. ** $p<.01$.

Table 2

Percent and Ratio of Temperament Type of Teacher Educators and State Supervisors Compared to That of the Base Population

Temperament Group		Teacher Educators (N = 244)	State Supervisors (N = 123)	Total (N = 367)
Intuitive	N	59	21	80
Thinkers (NT)	%	24.18	17.07	21.80
	I	1.10	0.78	0.99
Intuitive	N	28	3	31
Feelers (NF)	%	11.48	2.44	8.45
	I	0.54**	0.11'"	0.40**
Sensing	N	145	95	240
Judgers (SJ)	%	59.43	77.24	65.40
	I	1.49**	1.94**	1.64**
Sensing	N	12	4	16
Perceivers (SP)	%	4.92	3.25	4.36
	I	0.29**	3.19"'	0.26**

Note. I = Self selection Index (ratio of the percent of preference in group to percent In a data base of 33,201). A SRTT of 1.00 I ndfcates temperament type In the study group In the same proportion as expected in the base group.

**p<.01.

Table 3

Percent and Ratio of Temperament Type Compared by AATEA Region

Temperament Group		Central (N = 117)	Eastern (N = 54)	Southern (N = 147)	Western (N = 51)
Intuitive Thinkers (NT)	N	30	18	22	11
	%	25.64	33.33	14.97	21.57
	I	1.18	1.53*	0.69**	0.99
Intuitive Feelers (NF)	N	15	5	7	4
	%	12.82	9.26	4.76	7.84
	I	1.52"	1.10	0.56*	0.93
Sensing Judgers (SJ)	N	68	30	109	34
	%	58.12	55.56	74.15	66.67
	I	0.89"	0.85	1.13**	1.02
Sensing Perceivers (SP)	N	4	1	9	2
	%	3.42	1.85	6.12	3.92
	I	0.78	0.42	0.94	0.90

Note. I = Self selection index (ratio of the percent of temperament type In region to percent In the total respondent group of 367).

*p<.05. **p<.01.

In Table 4, ratios of temperament types were compared by experience categories. Among teacher educators and state supervisors with 1 to 8 years of experience, significantly more NF types and fewer SJ types were observed than expected. However, for 17 to 24 years of experience, there were disproportionately fewer NF types.

Table 4

Percent and Ratio of Temperament Type Compared by Years of Experience

Temperament Group		Years of Experience			
		1-8 yrs (N = 147)	9-16 yrs (N = 123)	17-24 yrs (N = 75)	25 yrs & > (N = 26)
Intuitive	N	35	25	15	6
Thinkers (NT)	%	23.81	20.33	20.55	23.08
	I	1.09	0.93	0.94	1.06
Intuitive	N	20	7	1	3
Feelers (NF)	%	13.61	5.69	1.37	11.24
	I	11.61**	0.67	0.16*	1.37
Sensing	N	86	88	52	15
Judgers (SJ)	%	58.50	71.54	71.23	57.69
	I	0.89*	1.09	1.09	0.88
Sensing	N	6	3	5	2
Perceivers (SP)	%	4.08	2.44	6.85	7.69
	I	0.94	0.56	1.57	1.76

Note. I = Self selection Index (ratio of the percent of temperament type in each category to percent In the total respondent group of 367).

*p<.05. **p<.01.

When prlmary assignments of state supervlsors and teacher educators were compared by temperament type, the following general findings were observed :

1. Sensing-Judging temperament types were more inclined to have assigned duties In agricultural mechanics, administration, supervision and extension education.

2. Sensing-Perceptive temperament types were more Inclined to have assigned duties in agricultural mechanics, instructional methods, and supervision.

3. Intuitive-Feeling temperament types were more inclined to have assigned dutles in curriculum 'development, program plannlng, SOEP, and inservice coordination.

4. Intultlve-Thinking temperament types were more Inclined to have assigned duties In leadership development, program planning, international development, Inservice coordination, and student teaching supervision.

Conclusions and Implications

Several conclusions and implications became evident when reviewing the results of the preference profile. The large proportion of SJ temperament types in the study, especially in administration and supervision roles, indicates a strong reliance on traditional approaches and values in agricultural education. Normally, Sensing-Judging types are more resistant to change, less interested in research, and less motivated by innovation and new ideas.

The small proportion of Sensing-Perceptive types in the study indicates a gap may exist between teaching styles available in teacher education programs and the preferred learning styles of many College of Agriculture students. Barrett, Sorensen and Hartung (1985) indicate SP students are one of the most numerous types in the University of Nebraska College of Agriculture.

The large proportion of ISTJ and ESTJ types reinforces data found by Horner and Barrett (1984). They found those two types most common among a variety of agricultural leaders In Nebraska.

The large proportion of ISTJ administrators and supervisors lends support to data found by Foster (1984) when analyzing preference type of extension agents and extension administrators in Nebraska.

The smaller proportion of Feeling types (20%) and Perceivers (11%) in the profession indicate that either these persons are not entering the profession or they are leaving the profession earlier than other preference types. Yet, clientele groups such as students and teachers are generally well represented within these type categories. This differential may lead to misunderstandings about such items as program direction, communication, and decision-making processes.

Differences observed between teacher education professionals and supervision professionals may account for possible differences In perceptions. As a group, state supervisors would be less inclined to make changes, whereas the teacher education group wou Id be more w i l l ing to take chances on new direction, ideas or concepts.

Teacher educators and state supervisors with 1 to 8 years of experience were observed to have significantly more Intuitive-Feeling temperament represented than expected, while teacher educators and state supervIsors with 17 to 24 years of experience had significantly less Intuitive-Feeling temperaments in their ranks.

Recommendations

The following recommendations are made from analysis of a national preference type profile of teacher educators and state supervisors in agricultural education and the differences observed between the two groups.

Teacher educators should become more familiar with preference and temperament type and its implications for improving both effectiveness and efficiency of teaching and learning. Inclusion of teaching and learning styles in preservice curriculum should strengthen the preparation of vocational agriculture instructors and increase the chances that instructor teaching styles and student learning styles can be more easily accommodated.

Teacher educators and state supervisors should become more familiar with preference type to gain a better understanding of each other,

professional colleagues and departmental work mates to better appreciate the uniqueness of the contributions of each to the profession.

Since agricultural educators of differing temperament types appear to gravitate to specific professional assignments, department heads and head state supervisors should take temperament type into consideration when making staff assignments.

Teacher educators and state supervisors should become more familiar with preference type of vocational agriculture instructors, vocational agriculture students and agricultural education majors to improve working relationships and enhance leadership and communication within the profession.

Since preference and temperament type is still somewhat new to agricultural education, additional research should be conducted to ascertain the answers and implications of the following questions:

1. What measures or strategies should be established with regard to the use of personality or preference type in agricultural education?

2. What is the impact of preference type on teaching and learning styles in an effort to improve teaching methodology and performance of agricultural education majors and/or secondary vocational agriculture students?

3. What is the relationship of preference type to an individual's primary work assignment and viewpoints on critical issues facing the profession?

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